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ABSTRACT

This study proposed to intervene systematically on teacher and pupil population with interpersonal skill training. The program was designed to provide opportunities for teachers to examine their own classroom behavior, and to provide children with social skill training. The inservice teacher training, utilizing an examination of on-site video tapings, was accompanied by significant gains in positive teaching behaviors. The analysis of teacher training correlated with social skill training for pupils showed significant mean gains in peer acceptance by those pupils whose teachers participated in the inservice training program and among the students who were direct recipients of social skill training. No change in peer acceptance was observed for the control group. (Author)

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THE RELATIONSHIP OF VIDEO-TAPING EXPERIENCES TO CLASSROOM INTERACTION BEHAVIORS AND PEER ACCEPTANCE AMONG ELEMENTARY PUPILS

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This study proposed to systematically intervene on teacher and pupil populations with interpersonal skill training. A basic assumption of the inter-personal skill training was that the quality of the classroom interactions is largely dependent on the socio-cultural understandings of the participants (Henry, 1959; Leacock, 1969; Rist, 1970). In the absence of such understandings, teachers may be employing classroom techniques which are inappropriate for the socio-cultural groups with which they are working. For example, the opinions of teachers concerning the learning ability of children were found to be based more in observed socio-cultural factors than in intellectual potential. Further, teachers' expectations were also found to be reflected in observable differential behaviors (Rist, 1970; Rosenthal and Jacobson, 1968).

Another dimension of effective classroom interactions is pupil-pupil interactions as they relate to the informal classroom social structure (Cohen, 1972). At least part of the answer to the problem of effective classroom interactions may be in providing both teachers and pupils with opportunities to learn how their behaviors influence the behavior of others (Brown, 1972; Henry, 1959). For pupil behavior affects teacher behavior, which in turn affects pupil learning. Additionally, a teacher's style of classroom interaction was observed to teach children how to perceive their classmates (Cohen, 1972). It was with this interdependence of these classroom interactions with which this study was concerned.

The major hypotheses proposed by the study were:

Given opportunities to examine, discuss and model behaviors, teachers will manifest an increased number of positive teaching behaviors and a greater acceptance of pupils by his classmates.

Given opportunities to explore the dynamics of group life, discuss the consequences of differential behavior and examine alternatives to the satisfaction of their needs, children will evidence a greater acceptance of their classmates.

Program Implementation

The program was designed to (1) provide opportunities for teachers to examine their own classroom behaviors and how these behaviors influence the classroom learning environment, and (2) provide children with social skill training through individual, small group, and classroom activities.

The program was conducted during the 1972-73 school year in three elementary schools in an urban setting.* The racial composition in the three schools was fifty-two (52) percent black and forty-eight (48) percent white. Thirty-eight (38) percent of the pupils were designated in the lower socio-economic status group; thirty-one (31) percent in the middle socio-economic group; and thirty-one (31) percent in the upper socio-economic group (Warner, et al, 1947).

Ten elementary teachers received classroom video taping inservice training. These classes were randomly assigned to social skill training and no social skill training treatment groups. Additionally, children from eight classes received social skill training only; children from six classes comprised the control group, receiving neither teacher inservice nor social skill training treatments.

Video-Tape Inservice. Classroom video tapings were made of the ten participating teachers in October, January, and March. After the taping sessions, the video tapes were analyzed by members of the project team, and the written critiques were shared with each teacher in a private viewing session. At this time, only effective classroom management techniques utilized by the teacher in her tape were identified for her (Kounin, 1970). Also identified for critiquing were those teaching behaviors which reinforced a child's confidence in his ability to learn by reducing the probability of his responding inappropriately (Dimitroff, 1969; Henry, 1957; Rist, 1970; Rosenshine and Furst, 1971). In sum, the teachers' critiques included only positive observations. At the conclusion of the viewing session, the teachers were asked if they would be willing to share their tapes with their peers in group consultation. None of the teachers ever refused. In monthly inservice training sessions, excerpts from these tapes provided opportunities for modeling a range of positive teaching behaviors beyond those currently employed (Bandura, 1970).

Social Skill Training. The social skill training for children was conducted one day per week by an elementary school counselor. The program of activities introduced to these selected

*This project was supported under provisions of Title I in cooperation with the Portsmouth City School Division.

classes provided: (1) classroom opportunities for children to explore the dynamics of classroom life and learn the techniques of effective interaction with others, (2) small group opportunities for children to discuss and learn the differential consequences of cognitive, affective, and social behaviors, and (3) individual opportunities for children to examine and adopt more productive alternatives to the satisfaction of their needs. The counselor was also available to the teachers and parents of these children for individual consultation sessions. Coordinating activities were also performed by the counselor with respect to certain special services and events.

Observation and Measurement

An assessment of the teacher inservice sessions was accomplished through observation of the classroom video-tapes of the ten participating teachers. The instrument, OScAR 5V, was utilized to observe video-taped classroom interaction behaviors recorded in the Fall and in the Spring (Medley and Mitzel, 1963). The frequency of occurrence of the forty-two (42) defined teacher events was interpreted using eighteen (18) scoring keys of such dimensions as management, lecturing behavior, question quality and feedback. Nonverbal behaviors were introduced through shifting the recording of teacher responses from one classification to another; e.g., "no evaluation" in which teacher does not reply may be recorded as "supporting" with the addition of a smile.

Two observers recorded each teacher at different time intervals. The result was two codings for each teacher for the Fall and Spring observations. A t-test on the codings obtained by each observer for the two time intervals revealed no significant coding differences ($\alpha = .05$). After the reliability of observer agreement was established, the observer ratings were pooled for each teacher.

Possible outcomes of video-taped experiences for teachers and social skill training for children were assessed by the degree of likability expressed among pupils. A Peer Acceptance Index* was administered to pupils in grades 3-6 in October and April. This instrument was designed to obtain a measure of the degree of acceptance or rejection of a pupil by his classmates. Each pupil was rated on a five-point scale by each of his classmates; a pupil's individual score was a composite of his classmates' ratings. In addition, control data were gathered on each pupil; i.e., his grade and class, age, sex, race, measured intelligence and self perceptions, and his teacher's rating of his social skill and academic performance. The analysis of the influence of social skill training and teacher inservice relative to the contribution of the control variables on peer acceptance was based on $n = 355$ subjects.

*The Peer Acceptance Index and the Self Perceptions Index, the MacB Personal Competence Inventory, are included in the ETS Headstart Collection. It has been administered to grades 3-7, representing race, sex, socio-economic status, and population density.

Analysis and Findings

The effectiveness of the video-tape experiences was assessed by changes in teacher behaviors over time, utilizing t-tests to observe changes in scores between the Fall and Spring tapings. The mean scores for the ten teachers on the scoring keys and the significant and non-significant changes between the Fall and Spring observation periods are presented in Table I. Mean changes approaching or exceeding the .10 level of significance are presented in the upper portion of the table.

Interpretation of the significant changes in scores was facilitated by grouping the scoring keys under three headings: (1) management and control, (2) communication and interaction, and (3) feedback and reinforcement. Significant trends are summarized as follows:

Within the category of management and control, a change from directly and procedural statements to more describing and considering statements was observed (Management, $p = .036$). This management style was accompanied by an increase in student-oriented responses and a decrease in teacher dominance (Dominance, $p = .008$). Another positive behavior accompanying these approaches was the increase in discovery-type questions posed by the teachers (Lecturing, $p = .110$).

A change was noted in the teachers' communication and interactional style. A significant decrease from the teacher-oriented single response line of questions to a movement of open, discovery, inquiry-type learning situations was observed (Eliciting, $p = .048$). Pupils tended to initiate and verbalize procedural requirements, their ideas, and questions more often.

The third grouping of scoring keys was feedback and reinforcement. The changes noted in the management style were seen in the types of feedback and reinforcement used to respond to student statements. A significant decrease was noted in rebuking behavior (Rebuking, $p = .005$); and the frequency of approving, supporting and criticizing responses increased, revealing more emphasis in the use of affective feedback (Support, $p = .024$).

In summary, significant mean changes in eight of the eighteen scoring keys approached or exceeded the .10 level of significance. These changes suggest that more positive trends in teaching behaviors were observed within the management, interactional and reinforcement categories.

After the intervention of teacher inservice and social skill training, the changes in peer acceptance among children were observed. Correlated t-tests indicated significant mean gains in peer acceptance for the treatment groups. The 2-tail probability

TABLE I

SIGNIFICANCE OF MEAN CHANGES IN CLASSROOM BEHAVIORS

Gains Reaching Significance, $\alpha = .10$

OScAR KEY	FALL MEAN	SPRING MEAN	PROBABILITY OF GAIN SIGNIFICANCE
Teacher Participation	982.70	884.10	.071
Dominance	-154.10	-1216.50	.088
Resistance	-357.90	- 202.00	.127
Eliciting	-1510.60	-1228.20	.048
Supporting	-238.40	-99.10	.024
Managing	8609.90	8731.20	.036
Lecturing	-2385.20	-1330.50	.110
Rebuking	157.60	114.30	.005

Gains Not Reaching Significance, $\alpha = .10$

OScAR KEY	FALL MEAN	SPRING MEAN	PROBABILITY OF GAIN SIGNIFICANCE
Enthusiasm	-716.80	-449.50	NS
Feedback	-3225.10	-3695.10	NS
Exertion Over Others	471.60	175.90	NS
Encouragement	-3168.30	-2792.10	NS
Positivity	1181.60	986.50	NS
Accepting	-798.00	-1422.50	NS
Question Persistence	-466.00	-543.10	NS
Question Source	-977.90	-3283.60	NS
Question Difficulty	2442.50	2279.20	NS
Question Quality	-3016.30	-2447.00	NS

and t-values for the treatment groups were as follows: (1) teacher inservice and no social skill training for children ($t = 7.28$, $p < .001$); (2) teacher inservice and social skill training for pupils ($t = 2.28$, $p < .03$); and (3) no teacher inservice and social skill training for pupils ($t = 4.23$, $p < .001$). No significant mean change in peer acceptance was observed for the control group, no teacher inservice and no social skill training ($t = -.59$, $p = .558$).

Additionally, a multiple regression analysis was run to determine if social skill training and teacher inservice significantly contributed to peer acceptance, given that selected pupil characteristics have been accounted for (SPSS, 1970). Table II presents the multiple regression summary table, where the pupil's grade and class, his age, sex, race, intelligence, pre-test of self perceptions and peer acceptance, teacher ratings of his academic ability and his social skill, and the presence or absence of social skill training and teacher inservice are predictors of post-test peer acceptance. It can be noted from Table II that the social skill training and video-tape inservice group were included after the pupil-related predictor variables were entered. The treatment variables were entered with a significant F and contributed five (5) percent to the multiple R^2. With the exception of the variable, pre-test of peer acceptance, the Beta weights for the two treatment groups, social skill and video-tape, were shown to have the greatest values. The Beta weights for age and sex were computed next in value.

In summary, the findings suggest that video-tape inservice experience for teachers was effective in creating a more positive classroom environment in two ways. First, the analysis of teaching behaviors indicates that after teacher inservice intervention, more productive teaching styles were evidenced. The positive change in certain features relative to effective classroom management, modes of interaction, and reinforcement style appears to recommend this approach for those elementary teachers isolated in self-contained classrooms. Opportunities for feedback, positive reinforcement, and modeling behaviors are seen as critical to this inservice program.

A second outcome of the teacher inservice program was the significant increase in likability among elementary pupils. It appears that opportunities for feedback, positive reinforcement, and modeling behaviors contribute not only to the change in teaching behaviors, but also to a more positive classroom climate.

The proposition that social skill training for children will result in greater peer acceptance was also supported. Thus, both treatments appear effective in creating a more positive classroom atmosphere. Consultation with either population could be expected to produce comparable results, so to economize, concentration should be on inservice training of teachers as each would work with some thirty children.

DEPENDENT VARIABLE.. POSTPA

TABLE II

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
GRADE	.07768	.00603	.00603	.07758	.03270	.03038
TPB	.17300	.02993	.02389	.15285	.02904	.03347
PRESC	.24988	.06244	.03251	.18505	.00165	.10869
SEX	.25926	.06721	.00477	-.03392	-.13219	-.15523
RACE	.27973	.07825	.01104	.03887	.06089	.07102
PREPA	.62805	.39445	.31620	.58634	.57590	.64052
IQ	.62823	.39468	.00023	.02793	-.00116	-.03188
TPA	.63270	.40031	.00563	.11972	-.08151	-.10904
CLASS	.63304	.40074	.00044	-.07353	.03187	.23226
SES	.63712	.40592	.00517	.16358	.02074	.07828
AGE	.65072	.42343	.01752	-.00671	-.05924	-.20559
SS	.68316	.46671	.04328	-.18800	-.22041	-.24803
VIDEO	.69241	.47943	.01272	.16521	.26315	.21343
(CONSTANT)					1.57958	

FINAL ANALYSIS OF VARIANCE

DUE TO	DF	SUM OF SQUARES	MEAN SQUARE	F
REGRESSION	13	20.11881	1.54760	15.51463
RESIDUAL	219	21.84548	.09975	

STANDARD DEVIATION OF RESIDUALS .31583

Predictor Variables

Grade = 3, 4, 5, 6
TPB = Teacher's rating of Social Skill of Pupil
PRESE = Pre-test, Self Perceptions Index
Sex = Male or Female
Race = Black or White
Pre PA = Pre-test, Peer Acceptance Index
IQ = Standardized Intelligence Score
FPA = Teacher's rating of academic achievement of pupil
Class = Classroom identification
SES = Socio-economic Status
Age = Chronological age
SS = Social Skill vs. No Social Skill training
Video = Teacher Inservice vs. No Teacher Inservice

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